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ABSTRACT

Examination of the relationship between Hispanic/Latino ethnicity, racial identification, acculturation, culture, language and the Minnesota Multiphasic Personality Inventory (MMPI/MMPI-2) has revealed controversial results. Because the MMPI/MMPI-2 is the most widely used personality assessment, it is important to understand how ethnic and socio-cultural variables factor into a psychological evaluation. This paper provides an overview of the literature on the appropriateness of using the MMPI/MMPI-2 with the Hispanic/Latino population as well as appropriate uses of the test with this population. (Contains 13 references.) (Author/GCP)

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Running head: USING THE MMPI/MMPI-2 WITH HISPANICS/LATINOS

Using the MMPI/MMPI-2 with the Hispanic/Latino Population

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Abstract

Examination of the relationship between Hispanic/Latino ethnicity, racial identification, acculturation, culture, language and the MMPI/MMPI-2 has revealed controversial results. Because the MMPI/MMPI-2 is the mostly widely used personality assessment, it is important to understand how ethnic and socio-cultural variables factor into a psychological evaluation. This paper provides an overview of the literature on the appropriateness of using the MMPI/MMPI-2 with the Hispanic/Latino population as well as appropriate uses of the test with this population.

Using the MMPI/MMPI-2 with the Hispanic/Latino Population

According to the U.S. Census 2000 online (2001, p. 1), "32.8 million Latinos reside in the United States, representing 12% of the total U.S. population. Approximately one in eight people in the United States are of Hispanic origin." Currently, Hispanics/Latinos are the second largest and the fastest growing minority population in the country. Though often grouped together as a single population, Hispanics/Latinos are an extremely diverse and culturally complex population. On the 2000 U.S. Census, the majority of Hispanics reported that their origin was Mexican, Puerto Rican, Cuban, Central or South American. Hispanics may be of any race (U.S. Census 2000 Online, 2001).

In an increasingly multicultural society, ethnic differences in psychopathology could have far reaching implications. Concentrating on those implications with regards to The Minnesota Multiphasic Personality Inventory (MMPI), one discovers that there is much controversy surrounding the appropriateness of using the MMPI/MMPI-2 with the Hispanic/Latino population. The MMPI/MMPI-2 is the most widely used and most intensively researched personality instrument available in the United States. Therefore, the validity, or lack thereof, of this instrument with ethnic or racial minorities has led to heated debate in which most conclusions are inconclusive. Dana (1995, p. 310) states, "Professionals using the MMPI with Hispanic Americans are making do with an inappropriate test;" whereas Velasquez, Gonzales, Butcher, Castillo-Canez, Apodaca, and Chavira posit that "the MMPI-2 normative sample is demographically more diverse and representative of persons who are likely to take the MMPI-2. Differences in scores associated with demographic characteristics such as ethnicity are relatively small" and of little consequence (1997, p. 108). For those using the MMPI/MMPI-2, such differing conclusions signify the necessity of understanding the strengths and limitations of the

assessment when diagnosing and assessing Hispanic/Latino clients as well as the appropriate uses of the test with this population.

Appropriateness in Using the MMPI with Hispanic/Latino Populations

The MMPI was created in 1943 using a norming population of homogeneous non-Latino white, middle to lower socioeconomic status Minnesotan farmers who were mostly married and for the majority, around the age of thirty-five (Graham, 2000). However, due to the ever-increasing diversity of the United States, this original norming population quickly became antiquated. In the 1980s the MMPI was updated and renormed due to the archaic nature of the original homogeneous population, as well as things such as sexist language and Eurocentric assumptions, which were made throughout the inventory.

The norming population used to create the MMPI-2 was a stratified sample based on the 1980 U.S. Census. With regards to the Hispanic/Latino sub-population, this resulted in "Hispanics/Latinos representing 2.8% of the sampling,"(Dana, 1995, p. 309). And while this percentage did come close to matching the 1980 U.S. Census, and while the renorming population used in the MMPI-2 was more representative of the general population than the original norming sample, it remains inadequate. Due to the country's growth, increased diversity, and current demographics, the MMPI-2 norming sample Hispanic/Latino percentage is at present, considerably under-representing the population.

However, many assessors and researchers, such as Dana (1995), believe that the impression has been given that the MMPI-2 has taken into consideration cultural variance because of the population renorming. Given the renorming, clinicians may falsely assume the MMPI-2 is multiculturally appropriate when indeed it may not be. In reality, ethnic differences and acculturation were not taken into consideration when the MMPI-2 was constructed. "The

MMPI was constructed on the premise that all heterogeneous racial/ethnic populations were assimilated and consequently shared the core culture in American society" (Dana, 1995, p. 308). When the MMPI was updated to create the MMPI-2, these assumptions remained inherent to the assessment. Thus, culture, ethnicity, and assimilation can and may lead to an exaggeration in psychopathology as found by the MMPI/MMPI-2 (Whitworth & McBlaine, 1993).

Degree of acculturation, as well as one's own culture, plays a considerable role in a person's MMPI/MMPI-2 results. Studies done by Montgomery, Arnold, & Orozco, 1993; Montgomery, & Orozco, 1985; Montgomery & McBlaine, 1993, (as cited in Dana, 1995) all measured Hispanic's/Latino's acculturation using the *Acculturation Rating Scale for Mexican American's* (ARMSA) and applied these finding to the MMPI/MMPI-2. All three studies indicated that Mexican-American college students who had recently emigrated from Mexico "had elevated scores on scales L (Lie), 1(Hs), 5(Mf, for both males and females), 8(Sc), and 0(Si)" (p. 307). A more recent study, using the same methods, determined that Mexican-American college students who had recently come from Mexico had elevated scores on validity scales L (Lie) and K (Defensiveness), as well as elevated scores on clinical scales 1(Hs), 3(Hy), and 4(Pd). Such studies, in which the ARMSA was applied to the MMPI, have consistently documented a relationship between retention of an original Mexican culture and elevated MMPI clinical scales (Dana, 1995).

In addition, studies have been conducted in which no measure of acculturation was applied to MMPI results. Like those studies done in which acculturation was considered a factor, these studies also found that Hispanics/Latinos scored higher on certain validity and clinical scales than did non-Latino whites. Whitworth and Unterbrink (1994) noted that four different statistically valid studies, with subject populations of at least 100, revealed a "reasonably

consistent pattern of Anglo-Hispanic differences, with Hispanics scoring significantly higher on the MMPI L scale (Lie) and lower on the K (Defensiveness) and masculinity-femininity scales than Anglos" (p. 256). Additionally, Whitworth and McBlaine (1993) conducted a study, comparing the MMPI-2 as administered to 173 Hispanic (Mexican-American) and 110 Anglo university students. Like those of Whitworth and Unterbrink, their results revealed that Hispanics scored higher on two out of the eight validity scales: scales F (Infrequency) and L (Lie). Graham (2000) specifies that Hispanics "score approximately 3.0 to 5.0 T-score points higher on the F (Infrequency) scale than Caucasians" (p. 25)

With regards to clinical scales, the aforementioned study conducted by Whitworth and Unterbrink (1994) revealed that Hispanics scored "significantly higher" on scales 2(D), 4(Pd), 8(Sc), and 9(Ma). Graham states that Hispanics/Latinos tend to score 5.0 to 10.0 T-score points higher than non-Latino whites on scale 4(Pd) and on scale 9(Ma) (2000). He also notes that Hispanics/Latinos tend to score 5.0 T-score points higher than non-Latino whites on scale 8(Sc). He clarifies this elevation by stating that "the elevated scores do not necessarily suggest greater overt psychopathology but may simply be indicative of the alienation and social estrangement experienced by some ethnic minority group members" (Graham, 2000, p. 79). Furthermore, Hall et al. (1999) state that, "5.0 T-score points on any particular MMPI scale, is not clinically meaningful" (p. 192).

In addition to scoring the validity and clinical scales, Whitworth and Unterbrink (1994) also scored the fifteen content scales in their study comparing Mexican and Anglo-American university students' MMPI-2 profiles. The Hispanic/Latino group scored higher on all fifteen scales, with thirteen of the fifteen scales being "significantly different (between 4.0 and 6.2 T-score points higher)" (p. 259). The Low Self-Esteem (LSE) and Social Discomfort (SOD) were

the only two scales that did not reach a statistically significant difference (Whitworth & Unterbrink, 1994). Graham (2000) asserts that little information is available concerning Hispanic-Caucasian differences on the supplementary scales of the MMPI and that what information is available indicates no significant difference between the two groups.

The subjects used in the study conducted by Whitworth and Unterbrink (1994) were all university student volunteers and again, the Hispanic group consisted of all Mexican-American students. Comparisons of the socioeconomic status revealed no significant differences between the two groups and thus all differences in scores were considered to be the result of cultural and ethnic factors rather than socioeconomic differences (Whitworth & Unterbrink, 1994). In short, minority status influences MMPI/MMPI-2 profiles. "Discrimination based on minority status is a stressor that may be more prominent for persons of color. It is possible that the stress associated with discrimination may have negative health and mental health consequences for ethnic minority persons" (Hall et al., 1999, p. 186). In turn, these negative consequences tend to present as increased psychopathology on the MMPI/MMPI-2.

To address the differences that have been found in T-scores between Hispanics/Latinos and non-Latino whites, special norms for use with certain Hispanic/Latino clients have been recommended. Suggestions have also been made for scale adjustments to allow for differences between the person being assessed, in this case a Hispanic/Latino client, and the standardization sample (Dana, 1995). Gynther (1983) has made specific recommendations for adjustments on scales F (Infrequency), 8(Sc), 9(Ma) but thus far, none have been incorporated into the MMPI/MMPI-2.

However, regarding these differences, there is no consensus among the research or the researchers themselves. Many noted assessors have argued against specialized norms because of

the "complexity of culturally competent MMPI interpretation" (Dana, 1995, p. 310). The tentative consensus among these recognized assessors is that special norms would not address this complexity. However, others, such as Dana (1995), believe that special norms have never sufficiently been considered because of the melting pot mentality present in the United States culture. Because the push has historically been for integration and a minimization of ethnic differences, Dana believes that these realities are mirrored in the lack of consideration of special norms for different ethnic populations (1995).

Furthermore, there is no agreement as to whether the differences on the validity, clinical, and content scales mentioned above are truly noteworthy or need to be taken into consideration. Velasquez et al. (1997) state, "The MMPI-2 normative sample is demographically more diverse and representative of persons who are likely to take the personality assessment. Differences in MMPI-2 scores associated with demographic characteristics such as ethnicity are relatively small and probably associated with actual differences in individual characteristics of participants" (p. 108). Whitworth and Unterbrink concur and assert that with regards to the validity and clinical scale results in their study the "maximum absolute difference between the two ethnic groups was only 5.0 T points on the scale 8(Sc) with most of the significant differences only two to four scaled points" (1994, p. 261). With regards to the content scales, the largest difference was for the CYN scale, which was 6.2 T points higher for Hispanics/Latinos than for non-Latino whites whereas the rest of the differences found on the content scales were considerably smaller. "Rarely have such studies determined whether these obtained differences are of sufficient magnitude to affect clinical interpretation" (Greene, 1987, p. 497).

MMPI Corrections and Adjustments with Hispanic/Latino Populations

A great deal of research indicates that although differences between Hispanics/Latinos and non-Latino whites on the MMPI/MMPI-2 have been relatively minute and need not be addressed within the test itself, researchers and clinicians alike still recommend that ethnicity and origin of the individual client be taken into consideration when conducting a psychological evaluation. Because an exaggeration of psychopathology may occur on the MMPI/MMPI-2 when being given to Hispanics/Latinos, it is of the utmost importance that one make corrections and adjustments in interpreting the test as a step toward a valid evaluation.

The first and most strongly agreed upon adjustment when using the MMPI/MMPI-2 with Hispanics/Latinos is that clinicians should test for acculturation prior to interpretation of the MMPI/MMPI-2 profile. Dana asserts that the majority of Hispanics/Latinos are bicultural, assimilated, or marginal in their cultural orientation and it is pertinent to ascertain into which category one's client falls (1995). He continues by stating, "cultural variance represented by traditionality can result in significant elevations of MMPI/MMPI-2 scale scores" (Dana, 1995, p. 308). Prior to interpreting results of the MMPI, one must determine whether or not a client should be assessed as a cultural entity other than Anglo-American. "By beginning with an identification of the client as a cultural entity, the cultural orientation information provided by moderator variables can become a source of supplemental information for interpretation of MMPI scale elevations" (Dana, 1995, p. 308).

However, one encounters some difficulty in finding a research-validated acculturation rating scale to use with Hispanic/Latino clients. *The Acculturation Rating Scale for Mexican Americans* (ARMSA) is the only research-validated method for assessing acculturation level (Dana, 1995). Yet, as the name indicates, this method of assessment is specific to Mexican-

Americans. Therein lies another dilemma. Like the preponderance of research studies conducted, the majority of measurements used to assess acculturation are specifically for Mexican-Americans (Velasquez et al., 1997). And, even further complicating matters, one must take in to consideration that compared to Anglo-Americans, ethnic minority persons in the United states have a relatively collectivist orientation, whereas the dominant culture of the United States values an individualistic orientation. "Collectivist cultures emphasize attending to others, fitting in, and interpersonal harmony. Such cultural differences may be associated with differences in the expression of psychopathology" (Hall et al., 1999, p. 186).

In addition to testing for acculturation level, Velasquez et al. recommend several strategies for clinicians to use with Hispanic/Latino clients in order to increase the accuracy and usefulness of MMPI/MMPI-2 interpretations (1997). To begin, due to the difference in norming population, clinicians should always use the MMPI-2 as opposed to the MMPI when assessing Hispanic/Latino clients. Also, in order to gain a more comprehensive understanding of one's client, it is imperative that clinicians apply the entire MMPI-2, supplementary, content, and subscales included, when assessing their MMPI-2 scores (Velasquez et al., 1997). When interpreting the profiles of Hispanics/Latinos, clinicians should also have considerable knowledge of the beliefs and values of the client's culture (Groth-Marnat, 1997).

Finally, it is key that clinicians determine the most appropriate language for assessing Hispanic/Latino clients. While this may seem obvious if a client is a monolingual Spanish or monolingual English speaker, the gamut of bilingualism is extensive. Within this spectrum, one may conversationally appear fluent in English yet be dominant in Spanish, especially when discussing his/her feelings and emotions. Velasquez et al. (1997) recommend simply asking a client which language they prefer, or feel more proficient and fluent in, when disclosing his/her

feelings or which language they more commonly use when resolving emotional problems. Finally, "behavioral and observational data should always supplement MMPI/MMPI-2 scale scores," (Dana, 1995, p. 312).

Translations

It is generally accepted that one's language preference should be taken into consideration when administering the MMPI/MMPI-2. And with that knowledge, the MMPI/MMPI-2 has undergone more than 115 translations. However, there is much controversy and debate regarding the validity of these translations. Some researchers and experts believe that there are adequate Spanish translations while others disagree. Dana (1995) argues, "The procedures for adequate translation are complex, often poorly accomplished, and sometimes not feasible as a result of extreme differences between languages" (p. 312). In addition, he posits that there is much difficulty in translating subjective emotional states and cultural idioms and asserts that no acceptable unit of measurement has been established for evaluation of MMPI/MMPI-2 translations.

Cabiya, Chavira, Gomez, Lucio, Castellanos, and Velasquez (2000) conducted a study consisting of Hispanics/Latinos from Puerto Rico, Mexico, and the United States in which all three groups were given three different Spanish translations of the MMPI-2. The Puerto Rican group was given the "Puerto Rican adaptation of the Chilean version of the MMPI-2, those from Mexico the 'Mexican' adaptation, and those from the United States the official U.S. Spanish translation by Garcia-Peltoniemi and Azan-Chaviano" (Cabiya et al., 2000, p. 266-267). The results showed that the range of T-scores for all three groups was within one standard deviation indicating greater similarity than dissimilarity in performance.

Velasquez, Chavira, Karle, Callahan, Garcia, and Castellanos (2000) assessed bilingual and monolingual Latino students with translations of the MMPI-2. Fifty-seven undergraduate bilingual students were used for the first study conducted. Half of this group was first given the *Inventario Multifasico de la Personalidad-2-Minnesota, Version Hispana*, which is the official U.S. Spanish Translation, and the second half was given the English version. Six weeks later, the subjects were given the appropriate opposite version. Being undergraduate college students, the majority of participants were single and in their early twenties. Eighty percent were Mexican-American. When comparing the profile results, no mean differences greater than five T-score points were found. Velasquez et al. (2000) assert that the *Version Hispana* can be used with Spanish speaking clients with some degree of confidence.

The second portion of the Velasquez et al. study compared two Spanish versions of the MMPI-2, the *Version Hispana* and the *Mexican* adaptation. The population used for the second study consisted of 27 college undergraduate students, 85% of who were of Mexican-American origin. Between the two tests there was only a .42 test-retest coefficient, suggesting variable performance when participants were administered two different Spanish versions. This difference may be attributed to differing translations of idioms which appear on the test such as, "My judgment is better than it ever was," which is translated differently on each version. In addition, different words have various connotations in different cultures. For example, on the *Version Hispana*, the word *exitación* is used, which in Mexico implies sexual excitement but on the English version, this particular item asks about emotional excitement. These differences point to the fact that "idiomatic adaptations of an instrument are needed because a particular language has many unique idiomatic nuances" (Velasquez et al., 2000, p. 70). Depending on the country and even the region of any given country, the Spanish language varies. These conclusions help

bolster the argument that within-group differences play a role in interpreting MMPI/MMPI-2 profiles.

According to Fuller and Malony (1984), the most widely used Spanish translation of the MMPI-2 in Latin America was the *Nuñez* translation, published by Dr. Rafael Nuñez, of the National Autonomous University of Mexico. Fuller and Malony conducted a study in order to compare the MMPI-2 with the Nuñez version (1984). The subjects for this study were eighteen bilingual Hispanic females. Sixteen of the females were of Mexican descent while the two other subjects were of other Latin American descent. Half of the group was given the English version first while the remaining half began by taking the Nuñez translation. After a two-month interlude, each group took the other version and the scores were then compared.

The results of this study indicated that on validity scales F (Infrequency) and K (Defensiveness), as well as on clinical scales 1(Hs), 6(Pa), and 8(Sc), the Spanish T-scores were significantly higher by 4.0 to 6.0 T-score points. Fuller and Maloney concluded that the Nuñez translation appeared significantly different than the English version (1984).

The sample size for this study (n=18) was considerably small and was additionally skewed by origin and possibly by level of acculturation, which potentially limits the ability to generalize the results. Six of the subjects were born in Mexico whereas eleven were second-generation U.S. residents and one was a third-generation U.S. resident (Fuller & Maloney, 1984). Nevertheless, these differences did occur and must be taken in to consideration when choosing an appropriate Spanish translation of the MMPI/MMPI-2.

Conclusions

Greene (1987) identified only ten published empirical studies comparing Hispanics and non-Latino white groups on the MMPI/MMPI-2 and according to the research that has been

conducted thus far, there is little evidence that the differences between Hispanic/Latino results on the MMPI/MMPI-2 as compared to Anglo-Americans are of much clinical significance. It would appear that there are not significant differences between these two groups, and those differences that have been identified have not been consistent across research studies. While certain studies identify elevations on three out of the ten clinical scales, others have found that elevations exist on five out of the ten clinical scales. Additionally, the research shows that most differences are within five T-score points. Furthermore, the differences that have been found to exist between Hispanic/Latinos and non-Latino whites are hard to compare or generalize and difficult to consider valid due to small population sizes and the considerable within-group differences found among Hispanics/Latinos (Graham, 2000). Many studies do not report the origin or descent of their subjects and in general, most research that has been conducted has been done with Mexican-Americans only.

Yet, one must not ignore the fact that differences in T-scores do exist. Clinicians must take into account ethnicity and cultural difference when psychologically evaluating Hispanics/Latinos. Researchers and clinicians alike have suggested numerous corrections and adjustments when using the MMPI/MMPI-2 with Hispanic/Latino clients such as taking in to account his/her acculturation and honoring his/her language preference and proficiency. Finally, one must also be cautious when choosing a Spanish translation of the MMPI/MMPI-2. The version chosen must be in accordance with the client's country of origin and must be empirically validated. Furthermore, more research must be conducted with regards to with-in group differences both with regards to the MMPI-2 and with regards to acculturation testing.

References

Cabiya, J. J., Chavira, D. A., Gomez, F. C., Lucio, E., Castellanos, J., & Velasquez, R. J. (2000). MMPI-2 scores of Puerto Rican, Mexican, and U.S. Latino college students: A research note. *Psychological Reports, 87*, 266-268.

Dana, R. (1995). Culturally competent MMPI assessment of Hispanic populations. *Hispanic Journal of Behavioral Sciences, 17(3)*, 305-319.

Fuller, C. G., & Malony, N. (1984). A comparison of English and Spanish (Nunez) translations of the MMPI. *Journal of Personality Assessment, 48(2)*, 130-131.

Graham, J. R. (2000). The MMPI-II: Assessing personality and psychopathology. 3rd edition. New York: Oxford University Press.

Greene, R. L. (1987). Ethnicity and MMPI performance: A review. *Journal of Consulting and Clinical Psychology, 55(4)*, 497-512.

Groth-Marnat, G. (1997). Handbook of psychological assessment. 3rd edition. New York: John Wiley & Sons.

Gynther, M. D. (1983). MMPI interpretation: The effects of demographic variables. *Advances in personality assessment 3*, 175-193.

Hall, G. C., Bansal, A., & Lopez, I. R. (1999). Ethnicity and Psychopathology: A meta-analytic review of 31 years of comparative MMPI/MMPI-2 research. *Psychological Assessment, 11(2)*, 186-197.

U.S. Census 2000 Online. (2001). The Hispanic population in the United States. Retrieved February 10, 2002 from http://www.census.gov/

Velasquez, R. J., Chavira, D. A., Karle, H. R., Callahan, W. J., Garcia, J. A., & Castellanos, J. (2000). Assessing bilingual and monolingual Latino students with translations of the MMPI-2: Initial data. *Cultural Diversity and Ethnic Minority Psychology, 6(1),* 65-72.

Velasquez, R. J., Gonzales, M., Butcher, J. N., Castillo-Canaz, I., Apodaca, J. X., & Chavira, D. (1997). Use of the MMPI-2 with Chicanos: Strategies for counselors. *Journal of Multicultural Counseling and Development, 25*, 107-120.

Whitworth, R. H., & McBlaine, D. D. (1993). Comparison of the MMPI and MMPI-2 administered to Anglo- and Hispanic-American university students. *Journal of Personality Assessment, 61(3),* 19-27.

Whitworth, R. H., Unterbrink, C. ((1994). Comparisons of MMPI-2 clinical and content scales administered to Hispanic and Anglo-Americans. *Hispanic Journal of Behavioral Sciences, 16(3)*, 255-264.

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